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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,290	01/23/2004	Karsten Jordan	2001P10197WOUS	9415

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SD

Office Action Summary

Application No.

10/764,290

Applicant(s)

JORDAN ET AL.

Examiner

Stephen Gravini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on August 9, 2001. It is noted, however, that applicant has not filed a certified copy of the German PCT application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 8, and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically the amend feature of claim 1 including the structure of a gas lance located before the combustion material with the feature that provides a throughway for fuel to flow to the pilot burner is considered not to be described in the specification such that one skilled in the art would be able confirm that the inventors had possession of the claimed invention. Also, the claim 8 amended feature including having a channel for assisting routing of a fuel is considered to be new matter because applicants' originally filed specification discusses in paragraph 26 of the pre-grant publication that a pilot burner produces a more easily

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adaptable fuel routing to meet the requirements of the pilot fuel such that one skilled in the art would not ascertain the inventors had possession of the invention because an easily adaptable feature is considered patentably distinct from the now claimed routing assistance feature. Finally the claim 10 amended feature of having a fuel channel located upstream of the combustion chamber is considered also, along with claims 1 and 8, not to described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention because pre-grant publication specification originally filed paragraph 26 describes combustion material located after the mouth of the gas lance, a mouth of additional channel and the pilot air channel, but does not describe a flow path such that the newly claimed upstream location feature is part of the original specified invention. For these reasons, claims 1, 8, and 10 are considered to contain new subject matter, as originally filed.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1-4, 8-12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (US 5,080,527) in view of Stoschek (WO 00/41548). Bell is considered to disclose either a pre-mix burner or gas turbine comprising:

a main burner **32** adapted to receive the greater part of the combustion air; and

a pilot burner **34** adapted to stabilize a lean combustion in the main burner, wherein the pilot burner is a pore burner with a combustion material that has a fine-pore structure; or alternatively

mixing combustion air with fuel to receive a combustion gas mixture, whereby the mixing is performed by a main burner (please see column 5 line 53 through column 6 line 2);

burning the combustion gas mixture the combustion being stabilized in the main burner by a pilot burner, wherein a combustion reaction takes place in the pilot burner with in a fine pore combustion material (please see column 6 lines 3-18). Because the preamble does not limit the structure of the claimed invention, the body of the claim describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure see *Intirtool, Ltd. V. Texas Corp.*, 369 F 3d 1289, 70 USPQ2d 1780 (5/10/04). Bell is also considered to disclose the claimed fine-pore structure formation by foaming of the combustion material wherein the combustion material is ceramic (column 6 line 8), the combustion material comprises Zirconium Oxide or Silicon Carbide (column 6 line 9), and wherein the gas turbine is a stationary gas turbine (please the stationary gas turbine prior art discussions in that disclosure). Examiner bases the obviousness rejection on the assumption that the 35 USC 112, first paragraph rejection can be overcome. Bell is considered to disclose the claimed invention except for the features of "having a gas lance located before the combustion material that provides a throughway for fuel to flow to the pilot burner," "having a channel for assisting routing of a fuel," or "having a pilot fuel channel located upstream

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of the combustion material.” Stoschek, another pre-mix burner apparatus and method, is considered to disclose those features on the face of that reference. It would have been obvious to one skilled in the art to combine the teachings of Bell with the features of “having a gas lance located before the combustion material that provides a throughway for fuel to flow to the pilot burner,” “having a channel for assisting routing of a fuel,” or “having a pilot fuel channel located upstream of the combustion material,” considered disclosed in Stoschek, for the purpose of increasing thermal efficiency and optimum radiant and thermal energy during combustion.

Claims 5-6 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Stoschek in further view of Joyce (US 5,317,992). Bell in view of Stoschek is considered to disclose the claimed invention, as discussed above under the obviousness rejection, except for the claimed Nickel or Cobalt based super alloy being a highly heat resistant steel. Joyce, another pre-mix burner, is considered to disclose the Nickel or Cobalt based super alloy being a highly heat resistant steel at column 7 lines 10-13 wherein the disclosed inconel is considered to be a super alloy since its primary components are Iron, Nickel, and Cobalt which is also highly heat resistant. It would have been obvious to one skilled in the art to combine the teachings of Bell in view of Stoschek with the Nickel or Cobalt based super alloy being a highly heat resistant steel, as considered disclosed in Joyce, for the purpose of allowing an air and fuel mixture or a porous burner element that possesses heat resistant porous material properties.

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Stoschek in further view of Suchkovsky (US 5,879,154). Bell in view of

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Stoschek is considered to disclose the claimed invention, as discussed above under the first obviousness rejection, except for the claimed ring channel for combustion air of the main burner that surrounds the pilot burner. Suchkovsky, another pre-mix burner, is considered to disclose a ring channel for combustion air of the main burner that surrounds the pilot burner at column 3 lines 32-40 wherein the disclosed flame spreader is considered to anticipate the claimed ring channel because both share the same burner shape and configuration. It would have been obvious to one skilled in the art to combine the teachings of Bell in view of Stoschek with the ring channel for combustion air of the main burner that surrounds the pilot burner, as considered disclosed in Suchkovsky, for the purpose of substantially decreasing the level of NO_x emissions generated by the burner assembly based on the disclosed ring coaxial arrangement.

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new grounds of rejection.

Conclusion

Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on 571 272 4475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMG
July 5, 2005

A handwritten signature in black ink that reads "Stephen Gravini". The signature is written in a cursive, flowing style.